

S P A C E R E V I E W

Editor:

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S. R. Stebbing.

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E d i t o r i a l

Well, here it is at last. The first issue of SPACE REVIEW. We are sorry for the delay, but since resigning from the Secretaryship of another organisation devoted to another subject, a change of address has become effective with the resulting moving chaos which was made even more difficult due to the harsh weather conditions which prevailed at the time.

Before I go any further, it is perhaps appropriate to announce the reasons for distributing an amateur publication of this nature.

It is the intention of the Editor to establish and maintain a link with scientifically minded groups and individuals residing in all parts of Britain and overseas - and to encourage the circulation of new astronomical theories, news items and discoveries of interest to readers. Other scientifically minded groups are invited to exchange information and publications with the Editor of SPACE REVIEW and to advertise their activities in our "Panorama" feature.

This issue is being edited by S.R. Stebbing with the help of co-operating contributors whose names will be listed in a future issue. David A. Hardy, F.R.A.S., has expressed his willingness to do a design for the cover which will be forthcoming within the next month or so. Mr. Hardy, as many readers will know, is well-known for his excellent paintings and designs of scenes from outer space.

SPACE REVIEW is issued approximately bi-monthly according to the time, support and financial assistance received. You can obtain copies regularly either by sending us your bulletin or by sending a remittance of 9d for single copies, or 4/- subscription for 6 issues. Readers in the U.S.A. and Canada can send one dollar or equivalent for the full subscription. Donations are also very welcome.

Also to cover the expenses involved in publishing, readers are urged to advertise in SPACE REVIEW at the following rates: one whole page, £3. 10. 0.; half page, £2. 0. 0.; quarter page, £1. 5. 0... Classified adverts are accepted at 5/- for three lines and 2/- for each additional line. About twelve words make up one line. Payment for adverts must be made in advance. The address is: The Editor, 2 Station Road, Frimley, Nr. Aldershot, Hants.

Space Age News

In every respect, SPACE REVIEW will stand for space age news as it appears. It will cover various scientific aspects including new developments in space travel, cosmology, life on other planets, planetary atmospheres, phenomena of a fortetean nature (interplanetary and atmospheric), geophysics, astrophysics, meteorology, etc. Readers are asked to help by submitting news clippings and articles on the above subjects.

MODERN MISSILE PAINTING FOUND IN RUINS OF HOME BE- LONGING TO AUGUSTUS.

Rome. (AP) --Bleek interspace missiles in the days of Caesar Augustus? Impossible. Yet new diggings on Rome's famous Palatine Hill have uncovered a painting that could easily depict a Titan or an Atlas missile.

The yellow ochre art work decorates the wall of a room that archaeologists think may have belonged to Augustus himself. The modern-looking cylinder stands vertically on slender fins on some kind of pad. Its needle nose points upwards as though awaiting the push of a button.

The mysterious object has been dubbed the missile of Augustus. Scientists say that whatever the symbolism, the painting had undoubtedly been lost forever in obscurity. More important than this one object, however, is the fact that the ancient hill may be yielding still another treasure---the house of Augustus, the first Roman Emperor. (Gene Duplantier, Toronto and The Owen Sound Sun Times, August 10th, 1961).

HAS THE EARTH TWO NATURAL MOONS? . JUST WHAT ARE THOSE MARTIAN CANALS??

On September 21, 1961, the New Scientist reported that a second natural satellite of the Earth had been discovered by K. Kordylewski, of the Cracow Observatory. The objects consist of two cloud-like formations in the same orbit as the Moon but about 60° behind it. (Ref: Scientific American, Vol. 205, No. 2, page 71, and H. Bunting of Stockport.)

Washington (Associated Press). A research chemist, Mr. Wells Allan Webb of Berkeley, California described the canals of Mars as similar to a large railway network and are unlike ordinary geological cracks. Any attempts to visit Mars should be preceded by unmanned probes for the detection of intelligent life that may exist.

RUSSIA DISCOVERS AN OCEAN MONSTER

London (Reuters). Pravda published a photograph of the ocean bed showing what is called "a gigantic trace of an animal so far unknown to science," Tass reported. It was taken nearly 10,000 feet down by the staff of the research ship Vityaz. The ships covered 30,000 miles in the Indian Ocean and was now on its 33rd cruise. (Victoria Daily Times, Oct. 4th, 1961.)

ONCE IN AN ORANGE MOON

Toronto (CP)...Popular songs and fairy tales to the contrary, the Moon is not blue, it's orange. Dr. S. Vandenberg claimed that working during the past year at David Dunlap Observatory has shown the Moon to be redder than the Sun. But, to a Moon traveller, it would appear orange. These findings were presented to a symposium on interplanetary explorations at the University Institute of Aerophysics. (Ref. Gene Duplantier of Toronto and The Owen Sound Sun Times dated Saturday October 28th 1961).

DEAD SEA IN ANTARCTICA

Temperatures in Antarctica sometimes drop - 60°; yet a lake recently discovered by Soviet scientists never freezes. The reason for this: the water is too salty.

NEW BOOKS

Structure of the Moon's Surface, by Gilbert Fielder, B.Sc., Ph.D., F.R.A.S., London, 1961. Pergamon Press Ltd. Price 50/- net.

There are many books written about the Moon. Some are suitable for the laymen, but others are written specially for the knowledgeable professional or amateur selenographer. Fielder's book comes under the latter class.

It is possibly of no great importance, but on reading the Foreward which gives the introduction on the aims for assembling the relevant data accumulated in the book, it was noticed that the author himself had written it. Of course, the Foreward should always be written by another person to introduce the author. Alternatively, the author can write the introduction, but the heading comes under Preface. This, however, is not a very unusual mistake.

As to the book itself. The data accumulated by Dr. Fielder personally is of intensive interest and well up to date. All there is to know (at least of importance) is included in this book. Chapters include. Lunar Librations, Height Determination of Points, Luminous Intensity of Lunar Rocks, Lunar Temperature, The Moon's Atmosphere, Nature of the Surface, Ray Systems, Grid System & Lattice Patterns, Origin of Surface Structure, Rilles, Faults and Wrinkle Ridges.

Mention is also made of colour changes, lights, bands, obscurations and crater movements, typical of a changing satellite. Similar data was assembled in earlier books by the late Dr. H.P. Wilkins and Patrick Moore, but, Dr. Fielder, the successor to Dr. Wilkins as Director of the Lunar Section of the British Astronomical Association, has presented his pertinent data in a manner slightly more technical. Dr. Fielder, is, of course, a professional astronomer of the Manchester University. In addition, he and his colleagues have worked at the famous Pic-du-Midi observatory situated in the mountainous areas of the Pyrenees in France.

Dr. Fielder has included a very long list of reference works and if one could obtain some of these from a source other than that of Dr. Fielder, one could claim to have a fair sized lunar library.

The book also includes a large selection of photographs of the Moon's surface taken by the Lick, Palomar and Pic-du-Midi observatories, and I certainly do agree with Fielder when he states that the best lunar photographs are taken by these three well-known observatories.

Readers may also like to know that most of these photographs are available from the Royal Astronomical Society in London or the Californian Institute of Technology Bookstore in Pasadena.

The Surface of the Moon - its structure and origin, by V.A. Firsoff, M.A., F.R.A.S., London, 1961. Hutchinson & Co. Price 21/- net.

Once again the introduction is headed Foreward instead of Preface as the author himself writes the summary. Still, this point should not be unduly stressed.

I note with relief that Mr. Firsoff has declined to include inessential use of technical language throughout the text - yet a fair knowledge of selenography and geology is assumed on behalf of the reader.

It is of great interest to note that Mr. Firsoff has not only collected a large amount of data from other reliable sources, but has also

accumulated certain relevant information by his own research methods. His own interpretation is given under the title Selenologia Nova.

Study of the Lunar Grid system has given rise to a revision on the nature and origin of the lunar surface and the grids have now become part of the official programme of the Lunar Section of the B.N.A. The grids are probably caused by tidal shifts in the Moon's crust, and the fact that the Soviet astronomer, N.A.Kozyrev observed an eruption in the Alphonsus region shows clearly that vulcanism is still not dead.

The object of this book is to produce a concise, comprehensive and systematic combination of data on the geology of the Moon. Strangely enough, this aspect has not been seriously considered in the past.

Many pertinent questions are answered with authority and utmost consideration in connection with the formation of surface features and the relationship with craters, grids and maria. On the whole, there is agreement between G. Fielder, P.Moore and V.A.Firschi on the development of ideas; these ideas are presumably arrived at by independent methods of research.

Photographs of lunar and terrestrial formations are included together with illustrations drawn personally by the author.

To sum up: both these books on lunar study are highly recommended.

PLEASE NOTE: All books reviewed in this publication are obtainable from The Editor, 2 Station Road, Frimley, Nr.Aldershot, Hants.

THE GREAT PLANETARY CONJUNCTION OF 1962

On February 4th/5th, five major planets will be lined up near the Sun in the constellation of Capricornus. At the same time, there will be a total eclipse of the Sun, invisible at Greenwich as its path of totality begins in the East Indies, crosses the Pacific area with a maximum duration of 4m 08s. A partial eclipse will be observed in parts of Asia, Australia, New Zealand and western North America.

Many theories have been advanced regarding the effect of the conjunction. Most of the prophecies come from astrological or spiritualistic sources and refer to terrible disasters and loss of life. There are also false prophets (mostly in the U.S.A.) who are selling land in remote areas and passports to Venus to escape the incoming catastrophe. According to astrology, the sign is Aquarius; the fact that the First Point of Aries is now in the constellation Pisces, due to the precession of the equinoxes is not considered from the astrological viewpoint.

However, there is another aspect to consider - the science of cosmobiology. According to a Prof. George Lakhovsky, this is the effect of cosmic radiations on the brain cells which in turn converts into currents of vital electricity. The brain is like a radio receiver and picks up various types of influences from outer space. Intense solar radiation during the eleven year cycles is known to affect auroral display and increase the apparent size of the venusian 'polar caps.' It is also well-known that magnetic storms cause breakdowns in ordinary radio communication and affect transmissions on short-wave.

The planetary conjunction will cause an unusual mass of planetary weights and magnetisms which will excite imbalance in cosmic radiations and energies. Disturbances in the upper atmosphere created by meteoric impacts etc., are known to cause seismic outbreaks. Prof.H.Benioff of

the California Institute of Technology claims that Los Angeles is due for a heavy earthquake which will almost certainly kill hundreds of people and do widespread damage. Also in the Sunday Express dated 14th January, 1962, under the heading "Capital gets a quake warning", Mr. Raymond Condon, a senior engineering geologist in the Works Ministry believes that New Zealand's capital Wellington runs a 60% chance of being destroyed by an earthquake within the next century. He also believed that Auckland and Christchurch have a chance of being destroyed by a volcano as Auckland is situated within the volcanic zones. Pressure from extra-terrestrial sources could excite these tendencies and bring about disastrous results within a short period of time. Even at the time of writing, natural catastrophes are widespread. Bush fires in Australia (the worst for many years), people dying of cold in Mexico, avalanches in Peru, etc.

Unfortunately, this planetary conjunction will not be observable from Greenwich, but people living in the Pacific Islands region will be able to see the conjunction during the short period of total eclipse. It is possible that some astronomical enthusiasts will organise expeditions to a suitable area or make observations from the air.

On 2nd October, 1969, an expedition was organised by the University of London Observatory to carry out outer coronal observations of the solar eclipse observable from the Canary Islands. Mr. E. W. Foster, Prof. C. W. Allen and other members of the observatory staff arrived loaded with spectroscopic equipment with the unfortunate result of finding the eclipse itself clouded out.

NEWS BRIEFS

Lack of support at the saucer convention held at Giant Rock, California last October, proves once and for all that saucer clubs are definitely on the way out....An Integretron invented by a Mr. George van Tassel for the purpose of rejuvenation and bringing youthfulness to aged people is not yet complete despite expenditure of thousands of dollars contributed by fans. Plans for its construction were given from outer space but this too seem to have the go-slow mood. The Integretron looks like an observatory dome but contains nothing more than hot desert air....An article on Fireballs appeared in the current issue of Hermes, Journal of the J.A.S. A comment by Patrick Moore was later sent to the Editor John Lytheer. "Fireballs and flying saucers are about as closely linked as are earwigs and sparking plugs" says Mr. Moore... "Oxygen in atomic, not molecular form has been detected in the night spectrum of Venus and I do not intend to imply there's life there" said B. Warner, when questioned about his article on this subject which appeared in the RAS publication Monthly Notices in 1960.....

THE RINGS OF EARTH

It may seem hard to believe, but our Earth has a halo! Many scientists have advanced numerous theories in order to explain the high concentration of dust that surrounds the Earth in a belt. One idea is inclined to a lunar origin. Meteorites are believed to hit the moon and spray off Moon dust which is captured in orbit round the Earth.. Another theory is advanced by Dr. J. H. Fremlin, Physicist of Birmingham University who believes that the dust comes from tiny meteorites which just graze the upper atmosphere but are slowed down enough to be captured in the Earth's gravitational field.

FLYING SAUCERS IN 1962?

Do flying saucers visit Earth once every 4.03 years? The first "flap" started publicly in 1947 and again in 1952 and late 1957. If flying saucers appear again in early 1962, it will support a theory advanced long ago by Prof. Hermann Oberth, the German rocket expert.

RESEARCH IN ANTARCTICA

Czechoslovakia was the twelfth nation to join an expedition of scientific investigators of the Antarctic. A four-man team of astronomers and physicists set forth in late November to join the seventh Soviet Antarctic expedition for Mirny base.

The four Czechoslovak scientists headed by astronomer Antonín Mrkos have plans of their own in addition to work organised by the Soviet team.

Dr. Pavel Chaloupka, expert on cosmic radiation, and Jaroslav Petrovsky, an electrical engineer, will conduct photometric measurement of intensity of the aurora australis, or polar light. The aim is to determine whether the polar light in the south is weaker than that of the northern aurora borealis. It is hoped to discover whether sodium in the upper atmosphere is of cosmic or terrestrial origin. Research will also be carried out to explain why the aurora shifts from West to East between evening and morning.

Cosmic radiation

In summer, when it is not possible to study polar lights, scientists will take measurements of the altitude of the Sun to determine astronomical points necessary for the exact mapping of the Antarctic.

A new device will be in use for the measurement of cosmic radiation. It is composed of 200 Geiger-Müller counters which can record 10^4 particles per minute. This is the first time that high-speed measurement of this type has been carried out in the Antarctic. Measurements of solar radiation are being made for the purpose of determining the safety of astronauts. Alois Kociš the fourth member of the Czech-

oslovak Academy of Sciences, will investigate the variations in the Earth's magnetic force due to auroral activity and other processes particularly in the ionosphere.

The expedition will return in the summer of 1963.

Outer Space Research Vital

Mr. Zemla expressed the Czechoslovak delegation's opinion that the committee on outer space in its new composition, would better reflect the objective situation in the world today.

A co-ordinated programme of outer space research is vital because of the immense complexity of the problems involved and the tremendous effect they have on our lives. Planned division of labour in biological research could, for instance, make possible more rapid investigation of interplanetary space, and in this way help to solve the question of the origin of life on this Earth and the possibility of life on other planets.

Earth satellites can be used to facilitate world wide radio and television transmissions. Meteorology offers a wide field in which satellites can make exact weather forecasts, with great benefits to agriculture and safety in air travel.

Ref: The above edited reports are taken from the Prague News Letter, Vol. 17 No. 25, dated 23rd Dec., 1961.

WAS THIS A SUPER NOVA?

A bright object spotted in the western sky last night may very well be a super nova, or exploding star, "something which only occurs every 200 years or so," says Frank J. DeKinder, Director of Observations of the Royal Astronomical Society of Canada, Montreal Centre. Mr. DeKinder first learned of the object from Dr. H. S. Hall, Principal of Sir Geo. Williams University. Dr. Hall

decided to check further when the object failed to move as a satellite would. (Montreal Gazette, September 22nd, 1961 & Gene Duplantier of Toronto, Canada).

P A N O R A M A F E A T U R E

THE ROYAL ASTRONOMICAL SOCIETY

The editor attended the January meeting of the RAS as a guest of one of the Fellows.

The speakers were, the Astronomer Royal, R.v.d.R. Woolley, W. Fowler, of the California Institute of Technology and Dr. Reddish.

It was announced from the Chair that the RAS had received an anonymous donation of £1,000.

UNIVERSITY OF LONDON OBSERVATORY

During the current winter session, several visits have been made to the above observatory. Two of these visits were organised and a further party is planned for early February. Visitors are shown all three telescopes, two refractors and one reflector. If clear, the visitors are allowed to view through the 8-in refractor under the guidance of the demonstrator in charge. When the weather is cloudy, visitors are shown equipment and illustration and are allowed to ask questions of astronomical interest.

It has been a pleasure to meet the following scientists on the occasion of both organised and private visits:- Prof. C. V. Allen, Director, Dr. G. Fielder, I. C. I. Research Fellow, Brian Varner, (Astr.) E. V. Foster, Res., spectroscopy, and T. Seemundsson, (Astr.) We would like to thank the above people for the courtesies extended on these visits.....

An interesting publication called SCOPT is issued by the University College London Astronomical Society. Miss C. Jordan is Editor, and single copies are available at 1/- each.

At the focus of astronomical activity in West Lancashire.

THE PRESTON & DISTRICT ASTRONOMICAL SOCIETY

Membership is open to all interested in astronomy and allied sciences. Weekly meetings (Sept., to May) include lectures, film shows, practical astronomy and visits to places of scientific interest. A

quarterly journal is issued free to members. Subscriptions: 15/- per year, (5/- for persons under 16). Further details from: The Secretary, Mr. C. Lynch, 31 Bispham Road, Carlton, Poulton-le-Fylde, Lancs.

THE DUTCH INTERPLANETARY SCIENTIFIC CENTRE

The above group wishes to announce that as from March 1962, their publication DISC DIGEST will be published in English. It will be issued quarterly with 48 pages of text. There will be articles on Space & Time, Cosmogony, Cosmography, space phenomena, space travel, geophysics and mankind in the space age.

Subscription rates are, 18/- or £2.50 for four issues. Single copies 5/- or 75¢. Special rates for students 10/-.

Remittances are payable by international money order to, "DISC", P.O. Box 537, The Hague (Den Haag) Holland.

FRIMLEY GROUP OF THE JUNIOR ASTRONOMICAL SOCIETY (J.A.S.)

In a few weeks, a local group of the JAS will be formed. Informal meetings, talks and discussions may be held at 2 Station Road, Frimley.

Miss J. Willcox, 25 Village Road, Finchley, N.3. will supply full general membership details of the JAS.

LONDON UNIDENTIFIED FLYING OBJECT
RESEARCH ORGANISATION

Before closing this issue of SPACE REVIEW, I wish to clear up one or two rumours which have been circulating in connection with the above organisation.

First of all, despite rumours to the contrary, I am not connected with LUFORO in anyway, either by membership or by the formation of a local branch. Secondly, SPACE REVIEW is not a branch publication for LUFORO, or for that matter, any other group or organisation. Thirdly, The Editor sees no reason to endorse the methods of organisation or 'research' being carried out by the above group, neither is there any reason to suppose that such a group will gain financial assistance and support from the HQ of UNESCO for flying saucer study!

LETTERS

I can well understand that anybody concerned with the serious study of UFOs is in a difficult position and must often keep embarrassing company, if only for the sake of financial support in the form of subscriptions.

Clearly, it would be even worse if you jettisoned the lunatic fringe of the UFO research.

As things now are, the UFO reports add little that is new. This may be inevitable, but a busy scientist, however open in his mind, will tend to await new developments from the exploration of space now in progress rather than rummage in piles of journalistic reportage, however conscientious.

(signed) Astronomer,

Glastonbury, Somerset.

Like yourself, I have a completely open mind on the subject of UFOs, although I must say that the lack of reports in the last couple of years, following such a rash of supposed sightings during earlier years makes me feel that many of these earlier reports must be attributed to some form of mass hysteria...

(signed) Astrophysicist,
Dept., of Astronomy, University of Manchester.

I wish you every success in your new ventures... (signed)
Lt. Col. G. F. B. Stephenson, F.R.A.S.

I think you are taking the most expedient course and I wish you every success with your new publication.....

(signed) R. G. Wyld, Northwood,
Middx.

Good luck with your new publication SPACE REVIEW....

(signed) The Hon. Brinsley le Poer Trench, London, S.W.10.

I congratulate you on a wonderful organisation in getting these books so quickly. My own collection is growing nicely thanks to you. Keep up the good work.

I enclose 4/- for 6 issues of SPACE REVIEW which I look forward to with great pleasure. Here's hoping it has a great future.....

(signed) H. Lord, Newcastle-on-Tyne 6.

N.B. Books on space subjects are available from the editorial address.

I am sorry to hear of the upheavals within Luforo, but I wish you all success with SPACE REVIEW...

(signed) Mollie Thompson,
Darwen, Lancs.

I shall be pleased to help in any way I can with SPACE REVIEW; in my opinion, a publication of this sort, dealing with all aspects of space research, has been long overdue in this country.....

(signed) J. G. Roberts, Preston & District Astronomical Society,
Blackpool, Lancs.